



04 DC  
01/04/02

PATENT  
ARK00797234B

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Fritsch et al. )  
SERIAL NO.: 10/020,776 )  
FILED: 12/12/01 )  
TITLE: **MULTILAYER MICROSTRUCTURE** )  
**DEVICES AND METHODS** )  
GROUP ART UNIT: )  
EXAMINER: )

COPY OF PAPERS  
ORIGINALLY FILED

INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

In compliance with the duty of disclosure set out in 37 C.F.R. §1.56, attached hereto is Form PTO-1449 containing a list of patents and/or publications for Applicant's Information Disclosure Statement.

Pursuant to 37 CFR Section 1.98, Content of information disclosure statement, copies of the below listed patents and/or publication references having an asterisk (\*) before them are not submitted herewith because they were submitted in prior application Serial No. 09/071,356. The earlier application is properly identified in this information disclosure statement and is relied on for an earlier effective filing date under 35 U.S.C. 120. The information disclosure statement submitted in the earlier application complies with paragraphs (a) through (c) of this section.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Director of Patents Washington, D.C. 20231, on March 4, 2002

Each listed patent and/or publication is considered relevant to the subject application in that they individually and collectively disclose a sampling of what has been previously employed in the arts related to MULTILAYER MICROCAVITY METHODS AND DEVICES.

Applicant respectfully requests consideration of each of the listed patents and/or publications during examination of the present application.

**Identification of Person Making This  
INFORMATION DISCLOSURE STATEMENT**

The person making this statement is:

(a) \_\_\_\_\_ the inventor(s) who signs below

\_\_\_\_\_  
Signature of Inventor

\_\_\_\_\_  
Name of Inventor Signing

(b)   X   the attorney who signs below on the basis of:

       the information supplied by the inventor(s)

       which has been reviewed by the attorney

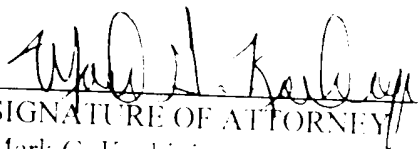
       which has not been reviewed by the attorney

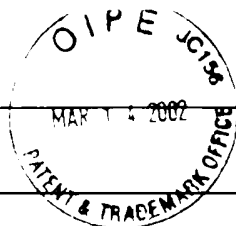
  X   the information in the attorney's file

Registration No.: 32,840

Telephone No. (479) 582-9111

Date: March 4, 2002

  
SIGNATURE OF ATTORNEY  
Mark G. Kachigian  
HEAD, JOHNSON & KACHIGIAN  
228 West 17<sup>th</sup> Place  
Tulsa, Oklahoma 74119  
Attorneys for Applicant



|  |                                 |                           |
|--|---------------------------------|---------------------------|
| <b>FORM PTO-1449</b><br><br><b>INFORMATION DISCLOSURE STATEMENT<br/>BY APPLICANT</b> | Atty. Dkt. No.:<br>ARK00797234B | Serial No.:<br>10/020,776 |
|  | Applicant: Fritsch et al.       |                           |
|  | Filing Date:                    | Group Art:                |
|  | 12.12.01                        |                           |

### U.S. PATENT DOCUMENTS

| Examiner Initial | Document No. | Date     | Name                        | Class | Sub Class | Filing Date If Appropriate |
|------------------|--------------|----------|-----------------------------|-------|-----------|----------------------------|
| AA               | *4,779,031   | 10 18 88 | Arends et al.               | 318   | 565       | 1/15 86                    |
| AB               | *4,891,242   | 1 2 90   | Ito et al.                  | 427   | 53.1      | 7/1 87                     |
| AC               | *4,961,806   | 10 9 90  | Gerrie et al.               | 156   | 252       | 6/22 88                    |
| AD               | *4,972,470   | 11 20 90 | Farago                      | 380   | 3         | 8/6 87                     |
| AE               | *5,053,920   | 10 1 91  | Staffiere et al.            | 361   | 383       | 10/9/90                    |
| AF               | *5,159,427   | 10 27 92 | Ogura et al.                | 357   | 48        | 9/26/90                    |
| AG               | *5,253,156   | 10 12 93 | Sakurai et al.              | 363   | 98        | 1/29/91                    |
| AH               | *5,313,150   | 5 17 94  | Arakawa et al.              | 318   | 768       | 7/2/92                     |
| AI               | *5,355,301   | 10 11 94 | Saito et al.                | 363   | 147       | 3/1/93                     |
| AJ               | *5,365,405   | 11/15 94 | Hoehnlein et al.            | 361   | 766       | 5/21/93                    |
| AK               | *5,384,691   | 1 24 95  | Neugebauer, deceased et al. | 361   | 794       | 1/8 93                     |

### FOREIGN PATENT DOCUMENTS

|     | Document No. | Date | Country | Class | Sub Class | Translation Yes No |
|-----|--------------|------|---------|-------|-----------|--------------------|
| AL  |              |      |         |       |           |                    |
| A M |              |      |         |       |           |                    |
| A N |              |      |         |       |           |                    |

### OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |   |
|----|---|
| AO | *Stock Product Catalog 501, Baldor Motors and Drives, January 1, 1997.                                |
| AP | *The Animatics SmartMotor, Animatics Corporation.   |
| AQ | *Industrial electronics, Technology 1998 Analysis & Forecast, IEEE Spectrum, January 1998, Pg. 73-78. |

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT  
BY APPLICANTAtty. Dkt. No.:  
ARK00797234BSerial No.:  
10/020,776

Applicant: Fritsch et al.

Filing Date:

12/12/01

Group Art:

## U.S. PATENT DOCUMENTS

| Examiner Initial | Document No. | Date    | Name                | Class | Sub Class | Filing Date If Appropriate |
|------------------|--------------|---------|---------------------|-------|-----------|----------------------------|
| AR               | *5,410,107   | 4/25/95 | Schaper             | 174   | 255       | 3/1/93                     |
| AS               | *5,412,558   | 5/2/95  | Sakurai et al.      | 363   | 98        | 9/7/93                     |
| AT               | *5,432,675   | 7/11/95 | Sorimachi et al.    | 361   | 719       | 11/15/93                   |
| AU               | *5,434,745   | 7/18/95 | Shokrgozar et al.   | 361   | 735       | 7/26/94                    |
| AV               | *5,452,182   | 9/19/95 | Eichelberger et al. | 361   | 749       | 4/7/92                     |
| AW               | *5,488,542   | 1/30/96 | Ito                 | 361   | 793       | 8/17/94                    |
| AX               | *5,495,394   | 2/27/96 | Kornfeld et al.     | 361   | 764       | 12/19/94                   |
| AY               | *5,532,512   | 7/2/96  | Fillion et al.      | 257   | 686       | 10/3/94                    |
| AZ               | *5,544,017   | 8/6/96  | Beilin et al.       | 361   | 790       | 7/19/94                    |
| BA               | *5,604,383   | 2/18/97 | Matsuzaki           | 257   | 778       | 5/11/95                    |
| BB               | *5,608,192   | 3/4/97  | Moriizumi et al.    | 174   | 255       | 7/26/95                    |
| BC               | *5,608,617   | 3/4/97  | Morrison et al.     | 363   | 147       | 5/3/96                     |

## FOREIGN PATENT DOCUMENTS

|    | Document No. | Date | Country | Class | Sub Class | Translation Yes No |
|----|--------------|------|---------|-------|-----------|--------------------|
| BD |              |      |         |       |           |                    |

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |  |
|----|--|
| BE | *Craig D.T. Bratten, Peter H. Cobbold, Jonathan M. Cooper; Micromachining Sensors for Electrochemical Measurement in Subnanoliter Volumes; <u>Anal. Chem.</u> , 1997, Vol. 69 No. 2, January 15, 1997, pgs. 253-258. |
| BF | *K. Leyendecker, W. Bacher, W. Stark, A. Thommes; New Microelectrodes For the Investigation Of the Electroforming Of Liga Microstructures; <u>Electrochimica Acta</u> , 1994, Vol. 39, No. 8 9, pgs. 1139-1143.      |
| BG | *Osamu Niwa, Masao Morita, Hisao Tabei; Fabrication and characteristics of vertically separated interdigitated array electrodes; <u>J. Electroanal. Chem.</u> , 1989, 267, pgs. 291-297.                             |

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT  
BY APPLICANTAtty. Dkt. No.:  
ARK00797234BSerial No.:  
10/020,776

Applicant: Fritsch et al.

Filing Date:

Group Art:

12/12/01

## U.S. PATENT DOCUMENTS

| Examiner Initial | Document No. | Date    | Name              | Class | Sub Class | Filing Date If Appropriate |
|------------------|--------------|---------|-------------------|-------|-----------|----------------------------|
| BH               | *5,616,888   | 4/1/97  | McLaughlin et al. | 174   | 260       | 9/29/95                    |
| BI               | *5,619,108   | 4/8/97  | Komurasaki et al. | 318   | 140       | 7/10/95                    |
| BJ               | *5,629,559   | 5/13/97 | Miyahara          | 257   | 666       | 12/6/94                    |
| BK               | *5,629,574   | 5/13/97 | Cognetti et al.   | 310   | 71        | 6/30/93                    |
| BL               | *5,634,267   | 6/3/97  | Farnworth et al.  | 29    | 840       | 11/14/94                   |
| BM               | *5,641,944   | 6/24/97 | Wieloch et al.    | 174   | 252       | 9/29/95                    |
| BN               |              |         |                   |       |           |                            |
| BO               |              |         |                   |       |           |                            |

## FOREIGN PATENT DOCUMENTS

|    | Document No. | Date | Country | Class | Sub Class | Translation Yes No |
|----|--------------|------|---------|-------|-----------|--------------------|
| BP |              |      |         |       |           |                    |
| BQ |              |      |         |       |           |                    |
| BR |              |      |         |       |           |                    |

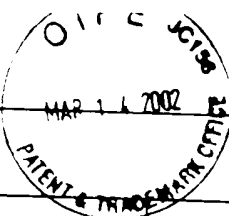
## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |   |
|----|---|
| BS | *Alan M. Bond, Darryl Luscombe, Keith B. Oldham, Cynthia G. Zoski; A Comparison Of the Chronoamperometric Response At Inlaid and Recessed Disc Microelectrodes; <u>J. Electroanal. Chem.</u> , 1988, 249, pgs. 1-14.  |
| BT | *Thor D. Osborn, Paul Yager; Formation of Planar Solvent-Free Phospholipid Bilayers by Langmuir-Blodgett Transfer of Monolayers to Micromachined Apertures in Silicon; <u>Langmuir</u> , 1995, 11, pgs. 8-12.   |
| BU | *Rose A. Clark, Paula Beyer Hietpas, Andrew G. Ewing; Electrochemical Analysis in Picoliter Microvials; <u>Anal. Chem.</u> , 1997, 69, pgs. 259-263.  |
| BV | *K.C. Burgers, K.J. Olejniczak, S.S. Ang, E. Porter; The Use of Multichip Module Technology for Power Electronics Miniaturization and Packaging; Department of Electrical Engineering, University of Arkansas; High Density Electronics Center (HiDEC), University of Arkansas, <u>Abstract</u> , 1997, pgs. 35-41. |

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



|  |  |                                 |                           |
|--|--|---------------------------------|---------------------------|
| FORM PTO-1449                                    |  | Atty. Dkt. No.:<br>ARK00797234B | Serial No.:<br>10/020,776 |
| INFORMATION DISCLOSURE STATEMENT<br>BY APPLICANT |  | Applicant: Fritsch et al.       |                           |
|  |  | Filing Date:                    | Group Art:                |
|  |  | 12/12/01                        |                           |

U.S. PATENT DOCUMENTS

| Examiner Initial | Document No. | Date    | Name           | Class | Sub Class | Filing Date If Approp |
|------------------|--------------|---------|----------------|-------|-----------|-----------------------|
| BW               | 5,290,420    | 3 1994  | Matson         | 204   | 403       |                       |
| BX               | 5,030,310    | 7 1991  | Wogoman        | 156   | 252       |                       |
| BY               | 5,066,372    | 11 1991 | Weetall        | 205   | 777.5     |                       |
| BZ               | 5,846,814    | 12 1998 | Galla et al.   | 435   | 287.2     |                       |
| CA               | 5,605,662    | 2 1997  | Heller et al.  | 422   | 68.1      |                       |
| CB               | 5,344,545    | 3 1994  | Tsukada et al. | 204   | 415       |                       |
| CC               |              |         |                |       |           |                       |
| CD               |              |         |                |       |           |                       |

FOREIGN PATENT DOCUMENTS

|    | Document No. | Date | Country | Class | Sub Class | Translation Yes No |
|----|--------------|------|---------|-------|-----------|--------------------|
| CE |              |      |         |       |           |                    |
| CF |              |      |         |       |           |                    |
| CG |              |      |         |       |           |                    |

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |  |
|----|--|
| CH |  |
| CI |  |
| CJ |  |
| CK |  |

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line thru citation if not in conformance and not considered. Include copy of this form with next communication to applica